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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,351	12/01/2004	Eiko Shimizu	018793-274	9534

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EXAMINER

LIU, JONATHAN

ART UNIT	PAPER NUMBER
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3673

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/516,351	Applicant(s) SHIMIZU ET AL.	
	Examiner Jonathan J. Liu	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 6-8, filed 11/9/2006, with respect to the rejection(s) of claim(s) 1, 3-8, and 10-16 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kitagawa (JP 10304950).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the embosses as described in the specification – Examiner sees the embosses in the top views of figures 1 and 4. It is unclear to Examiner what the cross-section of an emboss would appear as they are not shown in a side-view of the invention. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement

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sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 15 is objected to because of the following informalities: "circumscribes" should be --circumscribed-- Appropriate correction is required.

4. Claims 1, 3-4, 10, and 16 are considered product-by-process claim(s).

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." [citations omitted] See MPEP 2113. Therefore, since Kitagawa shows "embosses" at member 5 and the fins (see figure 1), the claim limitations of 1, 3-4, 10, and 16 are satisfied.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1, 3-8, 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 1 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: it is unclear to Examiner how "providing embosses" affects the "multiple filling chambers [being] expanded by a pressure of the heat medium." Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitagawa (JP 10304950). Kitagawa discloses a mat comprising multiple chambers (2) which are in parallel and adjacent to each other, wherein the multiple filling chambers are formed of flexible sheets, a gel-like heat medium is charged into the multiple filling chambers by inserting closely a bag (4) having the heat medium charged therein into each of the multiple filling chambers and sealing the multiple filling chambers, and the multiple filling chambers are expanded by a pressure of the heat medium (inherently) by providing embosses (at 5). The limitation of "each emboss being formed by bonding

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together predetermined regions of wall surfaces that form one of the multiple filling chambers" is considered a product-by-process limitation. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." [citations omitted] See MPEP 2113.

Furthermore, Kitagawa shows each emboss formed by bonding wall surfaces of the multiple filling chambers, the predetermined wall surfaces being opposite to one another and in the vicinity of at least one end of the filling chamber (see figures 1 and 3).

Regarding claim 3, see the above explanation of being a product-by-process limitation.

In regards to claim 5, Kitagawa shows flexible fins which are extended outwardly from at least a part of the margins (see figure 1).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Balaton (US 5,044,030). Kitagawa discloses the mat of claim

1. However, Kitagawa does not disclose wherein the multiple filling chambers are a pair

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of opposite thermoplastic resin sheets. Balaton discloses a mat comprising multiple chambers made of thermoplastic sheets (col. 3, lines 45-46). Kitagawa and Balaton are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the mat of Kitagawa with the thermoplastic resin sheets of Balaton. The motivation would have been to provide a material which is impervious to liquids in order to retain the mat in acceptable shape. Therefore, it would have been obvious to modify the invention of Kitagawa as specified in claim 4.

12. Claims 6-7, 11-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Navarro (US 6,226,820).

Kitagawa discloses the mat of claim 1. However, Kitagawa does not disclose wherein the heat medium is a cooling and heating material. Navarro discloses a gel pad wherein the gel can retain heat (thereby making it a warming material) or cold (thereby making it a cooling material) depending on the temperature to which the gel has been subjected (col. 5, lines 45-48). Kitagawa and Navarro are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Kitagawa, with the gel as either a warming or cooling material as taught by Navarro, in order to make the user of the mat comfortable. Therefore, it would have been obvious to modify the mat of Kitagawa as specified in claims 6-7 and 12-13.

With regards to claim 15, Kitagawa discloses a mat comprising multiple chambers (2) which are in parallel and adjacent to each other, wherein the multiple

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filling chambers are formed of flexible sheets, a gel-like heat medium is charged into the multiple filling chambers by inserting closely a bag (4) having the heat medium charged therein into each of the multiple filling chambers and sealing the multiple filling chambers, and the multiple filling chambers are expanded by a pressure of the heat medium (inherently) by providing embosses, the predetermined wall surfaces being opposite to one another and in the vicinity of at least one end of the filling chamber (see figures 1 and 3). The limitation of "each emboss being formed by bonding together predetermined regions of wall surfaces that form one of the multiple filling chambers" is considered a product-by-process limitation. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." [citations omitted] See MPEP 2113. However, Kitagawa does not teach wherein the embossed portion is completely circumscribed by un-embossed portions of the wall surfaces. Navarro shows embosses (36) which are completely circumscribed by un-embossed portions of the wall surfaces (16, 20). It would have been obvious to include the embosses of Navarro on the fins of Kitagawa to provide an attachment point for medical instruments (Navarro: col. 4, lines 32-34). Therefore, it would have been obvious to modify the invention to Kitagawa as specified in claim 15.

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In regards to claim 11, Kitagawa shows flexible fins which are extended outwardly from at least a part of the margins (see figure 1 of Kitagawa).

Regarding claim 16, see the above explanation of being a product-by-process limitation.

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Carson (US 6,375,674). Kitagawa as modified, discloses the mat of claim 1. However, Kitagawa does not disclose wherein the heat medium is a hydrogel. Carson discloses a cooling/heating pad comprising a hydrogel to achieve a relatively high thermal conductivity (col. 9, lines 12-17). Kitagawa and Carson are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Kitagawa, with the hydrogel as taught by Carson in order to improve the thermal conductivity of the cushion. Therefore, it would have been obvious to modify the invention to Kitagawa as specified in claims 8 and 14.

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Navarro (US 6,226,820) as applied to claim 15, in further view of Balaton (US 5,044,030). Please see discussion of claim 4.

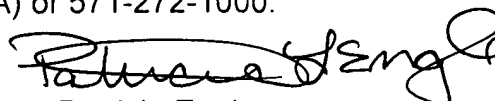
15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Navarro (US 6,226,820) as applied to claim 15, in further view of Carson (US 6,375,674). Please see discussion of claim 8.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan J. Liu whose telephone number is (571) 272-8227. The examiner can normally be reached on Monday through Friday, 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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2-5-07

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